

Science & Engineering Fair

The City of San Diego Environmental Services Department is pleased to recognize the following students whose Science Fair projects were selected as outstanding examples of environmental science and research. The department's panel of environmental professionals judged more than 80 projects and these students were selected as winners because of their clear, concise presentation, thorough research and the value of their projects to the preservation of San Diego's environment.

Senior Division

First Place **Chandler Garbell, High Tech High School**

Grounds for a Change: Testing the Efficacy of Coffee as a Fertilizer

Chandler compared Miracle Gro and coffee grounds as fertilizers and studied their effects on seed germination. In most cases, coffee grounds acted as a better fertilizer than Miracle Gro.

Second Place **Rui Jin, Scripps Ranch High School**

Smart Blinds

Rui built a device to study the use of window blinds to save energy. The blinds open and close automatically using a light-activated sensor to reduce heating and cooling costs.

Junior Division

First Place **Clint Akarmann, All Hallows Academy**

How to Save our Soil from Water Erosion

Clint tested different types of materials to see how well they prevented soil erosion. Wood chips and mulch were the most successful and showed the least amount of soil loss.

Second Place **Ariel Nuriel, Chabad Hebrew Academy**

Wind and Solar Generators

Ariel's project compared power generated by solar panels and wind turbines. The solar panels were more efficient at generating energy.

Honorable Mention

Gavin Boger

Mission Bay High School

See if Snails will Cross Copper
Banding to get to Food

Jeffrey Felios

Pershing Middle School

Better Battery Brands

Jacob Rucker

Canyon Crest Academy

Polluting Palomar: Effect of Skyglow
on Star Visibility – Year III

William Young

School of Madeleine

Light and Solar Energy

***Congratulations to all Students for their
Outstanding Scientific Achievements!***